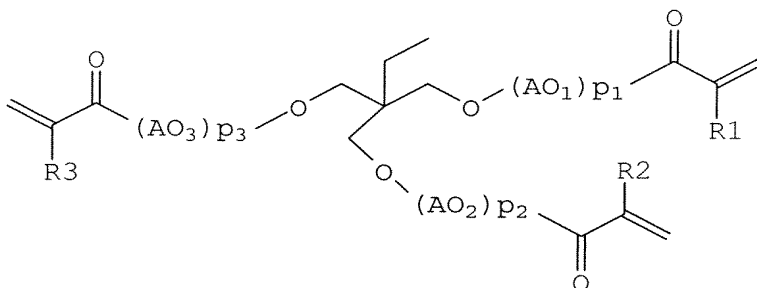


# AMENDMENTS TO THE CLAIMS

1. (Currently amended) An ester mixture comprising at least two esters selected from formulae 1a, 1b, or 1c, wherein esters F of the formula 1a have a structure:



wherein AO as AO<sub>1</sub>, AO<sub>2</sub>, and AO<sub>3</sub> as, independently, are at each instance EO, PO, or BO

wherein EO is O-CH<sub>2</sub>-CH<sub>2</sub>-,

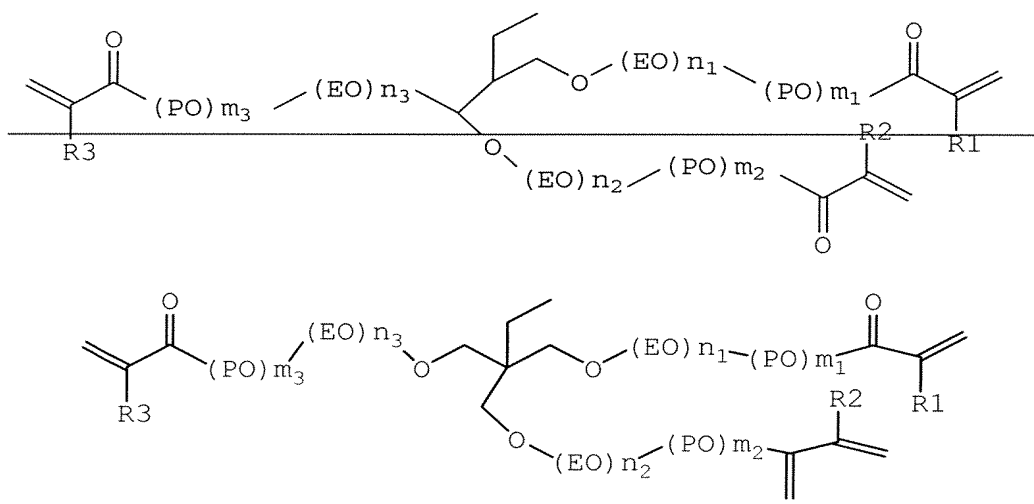
PO independently at each instance is O-CH<sub>2</sub>-CH(CH<sub>3</sub>)- or O-CH(CH<sub>3</sub>)-CH<sub>2</sub>-,

BO independently at each instance is O-CH<sub>2</sub>-CH(CH<sub>2</sub>-CH<sub>3</sub>)- or O-CH(CH<sub>2</sub>-CH<sub>3</sub>)-CH<sub>2</sub>-,

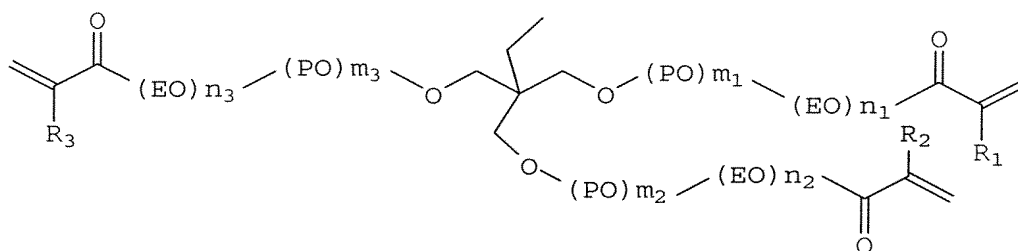
p<sub>1</sub> + p<sub>2</sub> + p<sub>3</sub> is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, or 75, and

R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are independently H or CH<sub>3</sub>,

and esters F of the formula 1b have a structure:



wherein EO is O-CH<sub>2</sub>-CH<sub>2</sub>-,  
PO independently at each instance is O-CH<sub>2</sub>-CH(CH<sub>3</sub>)- or  
O-CH(CH<sub>3</sub>)-CH<sub>2</sub>-, and  
n<sub>1</sub> + n<sub>2</sub> + n<sub>3</sub> is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44,  
45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, or 60, and  
m<sub>1</sub> + m<sub>2</sub> + m<sub>3</sub> is 4, 5, 6, 7, 8, 9, 10, 11, 12, or 13,  
R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> are independently H or CH<sub>3</sub>,  
and esters F of the formula 1c have a structure:



wherein EO is O-CH<sub>2</sub>-CH<sub>2</sub>-,  
PO independently at each instance is O-CH<sub>2</sub>-CH(CH<sub>3</sub>)- or O-CH(CH<sub>3</sub>)-CH<sub>2</sub>-,  
n<sub>1</sub> + n<sub>2</sub> + n<sub>3</sub> is 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44,  
45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, or 60,  
m<sub>1</sub> + m<sub>2</sub> + m<sub>3</sub> is 4, 5, 6, 7, 8, 9, 10, 11, 12, or 13, and  
R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> are independently H or CH<sub>3</sub>.

2. (Previously presented) The ester mixtures of claim 1 wherein AO at all instances for the esters F is EO, PO, or BO.
3. (Previously presented) The ester mixtures of claim 1 wherein only esters of formula 1a and 1b, or 1a and 1c, or 1b and 1c are present.
4. (Previously presented) The ester mixtures of claim 1 wherein esters of the formula 1b or 1c are present in the ester mixture at not less than 10% by weight.
5. (Previously presented) The ester mixtures of claim 1 wherein p<sub>1</sub> + p<sub>2</sub> + p<sub>3</sub> is 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, or 50.

6. (Previously presented) The ester mixtures of claim 1 wherein  $n_1$ ,  $n_2$ , and  $n_3$  of esters F are, independently, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20.

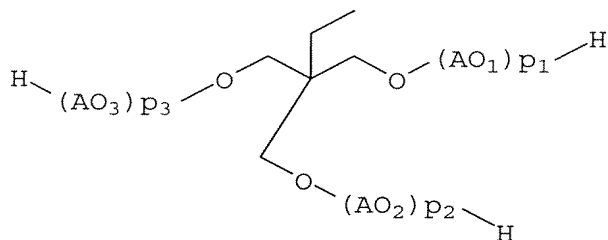
7. (Previously presented) The ester mixtures of claim 1 wherein  $m_1$ ,  $m_2$ , and  $m_3$  of esters F are, independently, 1, 2, 3, 4, or 5.

8. (Previously presented) The ester mixtures of claim 1 wherein  $m_1 + m_2 + m_3$  of esters F is 5 or 10.

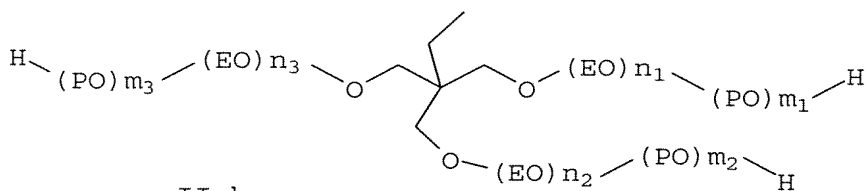
9. (Previously presented) The ester mixtures of claim 1 wherein  $n_1 + n_2 + n_3$  of esters F is 30 or 50.

10. (Previously presented) The ester mixtures of claim 1 wherein  $R_1$ ,  $R_2$ , and  $R_3$  are identical.

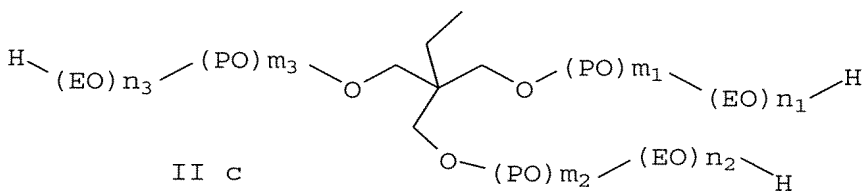
11. (Previously presented) A process for preparing an ester mixture of esters F of claim 1 from mixtures of alkoxyated trimethylolpropanes of formula II a, II b, and II c



II a



II b



II c

with (meth)acrylic acid comprising the steps of

- a) reacting the mixture of alkoxyated trimethylolpropanes with (meth)acrylic acid in the presence of at least one esterification catalyst C, at least one polymerization inhibitor D, and optionally a water-azeotroping solvent E to form the ester F,
- b) optionally removing from the reaction mixture some or all of the water formed in a), during and/or after a),
- f) optionally neutralizing the reaction mixture,
- h) when a solvent E is used, optionally removing the solvent E by distillation, and/or
- i) stripping the reaction mixture with a gas which is inert under the reaction conditions.

12. (Previously presented) A process according to claim 11, wherein a molar excess of (meth)acrylic acid to the mixture of alkoxyated trimethylolpropanes is at least 3.15:1, and the optionally neutralized (meth)acrylic acid present in the reaction mixture after the last process step substantially remains in the reaction mixture.

13. (Previously presented) The process of claim 11 wherein the (meth)acrylic acid is not more than 75% by weight removed from the reaction mixture obtained after the last step, which reaction mixture contains the ester mixture of esters F.

14. (Previously presented) The process of claim 11 wherein the reaction mixture obtained after the last process step, which comprises the ester mixture of esters F, has a DIN EN 3682 acid number of at least 25 mg of KOH/g.

15. (Previously presented) The process of claim 11 wherein the reaction mixture obtained after the last process step, which comprises the ester mixture of esters F, has a (meth)acrylic acid content of at least 0.5% by weight.

16. (Previously presented) The process of claim 13 wherein the molar ratio of (meth)acrylic acid to the mixture of alkoxyated trimethylolpropanes in reaction a) is at least 15:1.

17. (Previously presented) A process for preparing a crosslinked hydrogel comprising the steps of

- k) polymerizing an ester mixture of esters F of claim 1 with (meth)acrylic acid, optionally with an additional monoethylenically unsaturated compound N, and optionally at least one further copolymerizable hydrophilic monomer M, in the presence of at least one free-radical initiator K and optionally at least one grafting base L,
- l) optionally postcrosslinking the reaction mixture obtained from k),
- m) drying the reaction mixture obtained from k) or l), and
- n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

18. (Previously presented) A process for preparing a crosslinked hydrogel comprising steps a) to i) of claim 11 and additionally

k) polymerizing the reaction mixture from one of steps a) to i) of claim 11 if performed, optionally with an additional monoethylenically unsaturated compound N and optionally at least one further copolymerizable hydrophilic monomer M, in the presence of at least one free-radical initiator K and optionally at least one grafting base L,

l) optionally postcrosslinking the reaction mixture obtained from k),  
m) drying the reaction mixture obtained from k) or l), and  
n) optionally grinding and/or sieving the reaction mixture obtained from k), l), or m).

19. (Previously presented) A polymer prepared according to the process of claim 17.

20. (Previously presented) A crosslinked hydrogel comprising at least one hydrophilic monomer M in polymerized form crosslinked with an ester mixture of esters F of claim 1.

21. (Cancelled)

22. (Cancelled)

23. (Previously presented) A composition of matter comprising from 0.1% to 40% by weight of an ester mixture of esters F of claim 1, 0.5-99.9% by weight of at least one hydrophilic monomer M, 0-10% by weight of at least one esterification catalyst C, 0-5% by weight of at least one polymerization inhibitor D, and 0-10% by weight of a solvent E, with the proviso that the sum total is always 100% by weight.

24. (Previously presented) The composition of claim 23 wherein each ester F is present in the ester mixture at not more than 2% by weight based on the hydrophilic monomer M.

25. (Previously presented) The composition of claim 23 further comprising a diluent G.

26. (Previously presented) A crosslinked hydrogel prepared from a composition of claim 23 and postcrosslinked.

27. (Cancelled)

28. (Cancelled)

29. (Previously presented) The esters F in ester mixtures of claim 2 wherein AO in each instance is EO.

30. (Previously presented) The ester mixtures of claim 3 wherein only esters of the formulae 1b and 1c are present.

31. (Previously presented) The ester mixtures of claim 4 wherein esters of the formulae 1b and 1c are present in the ester mixture at not less than 20% by weight.

32. (Previously presented) The ester mixtures of claim 31 wherein esters of the formula 1b and 1c are present in the ester mixture at not less than 30% by weight.

33. (Previously presented) The ester mixtures of claim 10 wherein R1, R2, and R3 are H.

34. (Previously presented) A polymer prepared according to the process of claim 18.

35. (Previously presented) An article comprising a polymer prepared according to the method of claim 17.

36. (Previously presented) The article of claim 27 selected from the group consisting of a hygiene article, a packaging method, and a nonwoven.

37. (Previously presented) A method of absorbing an aqueous fluid comprising contacting the aqueous fluid with a hydrogel-forming polymer internally crosslinked using a mixture of esters F of claim 1.